

CLAIMS

1) Process for gluing together substrates that are made hydrophobic and oleophobic by prior treatment by means of a fluorinated compound and that are intended for the packaging market, consisting in applying on at least one of the substrates an adhesive that comprises:

- 5 to 50% by weight of at least one styrene block copolymer, and preferably 15 to 30%,
- 20 to 60% by weight of at least one tackifying resin that is compatible with the non-styrene phase, and preferably 35 to 55%,
- 0 to 20% by weight of at least one tackifying resin that is compatible with the styrene phase, and preferably 5 to 15%,
- 5 to 25% by weight of at least one thermofusible wax, and preferably 10 to 17%,
- 3 to 20% by weight of liquid plasticizers that are conventionally used in thermofusible adhesives,

such that the adhesive that results from this mixture exhibits:

- a viscosity of between 400 and 3000 mPa.s at 170°C, and preferably between 700 and 1400 mPa.s,
- a softening point encompassed between 75 and 120°C.

2. Process according to claim 1, characterized in that the block copolymers according to the invention are obtained from styrene monomers and at least one other monomer, such as ethylene, propylene, isoprene, butadiene, butylene or any other monomer that forms a two-phase medium with the styrene phase, constituting a diblock, triblock or multi-block, linear, radial or star-shaped structure, whereby the intermediate block consists of at least one of the monomers that is listed above, whereby said block copolymers or mixtures of block copolymers have:

- a mass percent of the styrene phase in the polymer that is between 10 and 40% and preferably between 20 and 35%,

- a mass percent of diblock structure encompassed between 0 and 50%,
- a flow index (MFI = Melt Flow Index) according to condition No. 10 of the NFT 51-016 standard of between 2 and 70 g/10 min.

3) Process according to claim 2, wherein the styrene block copolymer is a copolymer such as styrene/ethylene/butadiene/styrene (SEBS).

4) Process according to claim 1, wherein the tackifying resin or the mixture of resins that is compatible with the non-styrene phase is selected from among:

- the rosin or its derivatives, in particular rosin esters, optionally hydrogenated,
- polyterpenes, terpene-phenolic compounds or derivatives thereof,
- optionally hydrogenated polymers that are obtained from aliphatic or aromatic fractions or the mixtures of these fractions,

having a softening point that is measured according to the EN 1238 standard encompassed between 5 and 150°C, preferably between 75 and 120°C.

5) Process according to claim 4, wherein the tackifying resin that is compatible with the non-styrene phase is non-aromatic with a notable polar nature.

6) Process according to claim 1, wherein the tackifying resin or the mixture of resins that is compatible with the styrene phase is selected from among the polymers that are obtained from aromatic fractions or obtained from the polymerization of the alpha-methyl styrene, having a softening point that is measured according to the EN 1238 standard encompassed between 60 and 160°C.

7) Process according to claim 1, wherein the wax is selected for the most part from among the so-called microcrystalline waxes that have a melting point that is measured according to the ASTM D 127 method, encompassed between 70 and 120°C and preferably between 80 and 95°C.

8) Process according to claim 1, wherein the liquid plasticizer or the mixture of liquid plasticizers is selected from among the mineral oils, with a paraffinic or naphthenic nature, polybutenes or phthalates.

9) Thermofusible adhesive that comprises:

- 5 to 50% by weight of at least one styrene block copolymer, and preferably 15 to 30%,
- 20 to 60% by weight of at least one tackifying resin that is compatible with the non-styrene phase, and preferably 35 to 55%,
- 0 to 20% by weight of at least one tackifying resin that is compatible with the styrene phase, and preferably 5 to 15%,
- 5 to 25% by weight of at least one thermofusible wax, and preferably 10 to 17%,
- 3 to 20% by weight of liquid plasticizers that are conventionally used in thermofusible adhesives,

such that the adhesive that results from this mixture exhibits:

- a viscosity of between 400 and 3000 mPa.s at 170°C, and preferably between 700 and 1400 mPa.s,
- a softening point encompassed between 75 and 120°C.

10) Adhesive according to claim 9, wherein the block copolymers are obtained from styrene monomers and at least one other monomer, such as ethylene, propylene, isoprene, butadiene, butylene or any other monomer that forms a two-phase medium with the styrene phase, constituting a diblock, triblock or multi-block, linear, radial or star-shaped structure, whereby the intermediate block consists of at least one of the monomers that is listed above, whereby said block copolymers or mixtures of block copolymers have:

- a mass percent of the styrene phase in the polymer that is between 10 and 40% and preferably between 20 and 35%,
- a mass percent of diblock structures encompassed between 0 and 50%,
- a flow index (MFI = Melt Flow Index) according to condition No. 10 of the NFT 51-016 standard of between 2 and 70 g/10 min.

11) Adhesive according to claim 10, wherein the styrene block copolymer is a copolymer such as styrene/ethylene/butadiene/styrene (SEBS).

12) Adhesive according to claim 9, wherein the tackifying resin or the mixture of resins that is compatible with the non-styrene phase is selected from among:

- the rosin or its derivatives, in particular rosin esters, optionally hydrogenated,
- polyterpenes, terpene-phenolic compounds or derivatives thereof,
- optionally hydrogenated polymers that are obtained from aliphatic or aromatic fractions or the mixtures of these fractions,

having a softening point that is measured according to the EN 1238 standard encompassed between 5 and 150°C, preferably between 75 and 120°C.

13) Adhesive according to claim 12, wherein the tackifying resin that is compatible with the non-styrene phase is non-aromatic with a notable polar nature.

14) Adhesive according to claim 9, wherein the tackifying resin or the mixture of resins that is compatible with the styrene phase is selected from among the polymers that are obtained from aromatic fractions or obtained from the polymerization of the alpha-methyl styrene, having a softening point that is measured according to the EN 1238 standard encompassed between 60 and 160°C.

15) Adhesive according to claim 9, wherein the wax is selected for the most part from among the so-called microcrystalline waxes that have a melting point that is measured according to the ASTM D 127 method, encompassed between 70 and 120°C and preferably between 80 and 95°C.

16) Adhesive according to claim 9, wherein the liquid plasticizer or the mixture of liquid plasticizers is selected from among the mineral oils, with a paraffinic or naphthenic nature, polybutenes or phthalates.

17) Packages that consist of thin substrates of which at least one has been treated to be made hydrophobic and lipophobic assembled between one another by means of an adhesive of claims 9 to 16.

18) Packages according to claim 17, wherein they consist of identical, different or composite materials that are selected from among paper, cardboard, a

metal such as aluminum, or plastics such as polyethylene, polypropylene, terephthalate polyethylene and polystyrene.